

**Fishery Management Plan for the Commercial Tanner
Crab Fishery in the Kodiak District of Registration
Area J, 2005**

by

Nicholas H. Sagalkin

December 2004

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Measures (fisheries)	
centimeter	cm	Alaska Department of		fork length	FL
deciliter	dL	Fish and Game	ADF&G	mid-eye-to-fork	MEF
gram	g	Alaska Administrative		mid-eye-to-tail-fork	METF
hectare	ha	Code	AAC	standard length	SL
kilogram	kg	all commonly accepted		total length	TL
kilometer	km	abbreviations	e.g., Mr., Mrs., AM, PM, etc.		
liter	L			Mathematics, statistics	
meter	m	all commonly accepted		<i>all standard mathematical</i>	
milliliter	mL	professional titles	e.g., Dr., Ph.D., R.N., etc.	<i>signs, symbols and</i>	
millimeter	mm			<i>abbreviations</i>	
		at	@	alternate hypothesis	H _A
Weights and measures (English)		compass directions:		base of natural logarithm	<i>e</i>
cubic feet per second	ft ³ /s	east	E	catch per unit effort	CPUE
foot	ft	north	N	coefficient of variation	CV
gallon	gal	south	S	common test statistics	(F, t, χ^2 , etc.)
inch	in	west	W	confidence interval	CI
mile	mi	copyright	©	correlation coefficient	
nautical mile	nmi	corporate suffixes:		(multiple)	R
ounce	oz	Company	Co.	correlation coefficient	
pound	lb	Corporation	Corp.	(simple)	r
quart	qt	Incorporated	Inc.	covariance	cov
yard	yd	Limited	Ltd.	degree (angular)	°
		District of Columbia	D.C.	degrees of freedom	df
Time and temperature		et alii (and others)	et al.	expected value	<i>E</i>
day	d	et cetera (and so forth)	etc.	greater than	>
degrees Celsius	°C	exempli gratia		greater than or equal to	≥
degrees Fahrenheit	°F	(for example)	e.g.	harvest per unit effort	HPUE
degrees kelvin	K	Federal Information		less than	<
hour	h	Code	FIC	less than or equal to	≤
minute	min	id est (that is)	i.e.	logarithm (natural)	ln
second	s	latitude or longitude	lat. or long.	logarithm (base 10)	log
		monetary symbols		logarithm (specify base)	log ₂ , etc.
Physics and chemistry		(U.S.)	\$, ¢	minute (angular)	'
all atomic symbols		months (tables and		not significant	NS
alternating current	AC	figures): first three		null hypothesis	H ₀
ampere	A	letters	Jan,...,Dec	percent	%
calorie	cal	registered trademark	®	probability	P
direct current	DC	trademark	™	probability of a type I error	
hertz	Hz	United States		(rejection of the null	
horsepower	hp	(adjective)	U.S.	hypothesis when true)	α
hydrogen ion activity	pH	United States of		probability of a type II error	
(negative log of)		America (noun)	USA	(acceptance of the null	
parts per million	ppm	U.S.C.	United States	hypothesis when false)	β
parts per thousand	ppt, ‰	U.S. state	Code	second (angular)	"
			use two-letter	standard deviation	SD
volts	V		abbreviations	standard error	SE
watts	W		(e.g., AK, WA)	variance	
				population	Var
				sample	var

FISHERY MANAGEMENT REPORT NO. 04-13

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AREA J, 2005**

by

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ABSTRACT

This report provides a brief overview of recent and historic fisheries for commercial Tanner crab *Chionoecetes bairdi* in the Kodiak District. This report also summarizes the current Alaska Board of Fisheries (BOF) regulatory harvest strategy for Tanner crab and provides a detailed explanation of regulations establishing pot limits, daily fishing periods, fishery delays for severe weather, section registration requirements, and superexclusive registration.

Four sections of the Kodiak District are scheduled to open for a commercial Tanner crab fishery on January 15, 2005. The opening date may be delayed due to severe weather under criteria established by the BOF. Participation in the Kodiak District Tanner crab fishery is restricted to limited entry by the Commercial Fisheries Entry Commission (CFEC). Only persons who qualify under CFEC criteria may participate in the 2005 fishery. The individual section guideline harvest levels (GHLs) are 550,000 pounds for the Northeast Section, 650,000 pounds for the Eastside Section, 100,000 pounds for the Southeast Section, and 450,000 pounds for the Southwest Section.

Information on tank inspections, gear requirements, inseason reporting, pot storage, landing requirements, recent survey results, and contact personnel within the Alaska Department of Fish and Game (ADF&G) is also provided. Details on how ADF&G intends to manage the 2005 fishery are also outlined. Harvesters are encouraged to use this document as a supplement to the 2003-2005 State of Alaska Commercial Shellfish Fishing Regulations to better understand the rules governing this fishery.

Key words: Tanner crab, *Chionoecetes bairdi*, Kodiak District, harvest strategy, regulations

INTRODUCTION

The Kodiak Tanner crab *Chionoecetes bairdi* District includes the waters of Registration Area J south of the latitude of Cape Douglas (58° 51.10' N lat.), west of the longitude of Cape Fairfield (148° 50.25' W long.) and east of the longitude of Cape Kumlik (157° 27' W long.). The district is subdivided into eight sections: Northeast, Eastside, Southeast, Southwest, Semidi Island, Westside, North Mainland, and South Mainland (Figure 1). Sections are described in 5 AAC 35.505 DESCRIPTION OF REGISTRATION AREA J DISTRICTS on pages 184-185 of the 2003-2005 Commercial Shellfish Fishing Regulations.

OVERVIEW

The Kodiak District Tanner crab *Chionoecetes bairdi* commercial fishery began in 1967. Commercial harvest peaked in the 1977/78 season when over 33 million pounds were harvested from the district (Table 1).

In the late 1980s, the Alaska Department of Fish and Game (ADF&G) began to use a trawl survey, developed by the National Marine Fisheries Service (NMFS), to obtain relative abundance estimates and predict future recruitment trends of Tanner crabs around Kodiak. Prior to this time, pot surveys were used for stock assessment.

Declines in the harvestable surplus of Tanner crabs in the Kodiak District through the 1980s led to decreased quotas and closures of some sections to commercial fishing. By 1994, commercial fisheries were closed in all Kodiak sections due to reduced stock size. Closures continued through the 1990s, even though some increases in stock size were noted late in the decade.

The Alaska Board of Fisheries (BOF) adopted a comprehensive harvest strategy in 1999 for management of Tanner crabs in the Kodiak District. Under this strategy, a commercial Tanner crab fishery may occur when 1) preseason trawl survey abundance estimates meet or exceed established thresholds; 2) two or more sections, excluding the South Mainland and Semidi Island Sections, are opened; 3) the guideline harvest level (GHL) in an open section is at least 100,000 pounds; and 4) abundance is sufficient to provide a total district harvest of at least 400,000

pounds (Urban et al. 1999). Minor revisions to the management measures of the Tanner crab fishery occurred at the 2001 BOF meetings (see Regulations on page 3 and 4).

In October 2002, the Commercial Fisheries Entry Commission (CFEC) adopted a petition to limit entry into the Kodiak District Tanner crab fishery. A qualifying moratorium was established with an effective date of January 1, 2003. Fisheries subsequent to the moratorium date were not counted as qualifying years in the limited entry process. Participation by the permit holder in at least one of the qualifying years of 1993, 1994, 2001, or 2002 was required to participate in the 2004 fishery.

CFEC developed a point system to further reduce the number of eligible fishing permits to 180. CFEC has not completed the review process for all of the applications. Applicants may be able to purchase an interim use permit card for the 2005 season. For more information regarding the limited entry process, contact CFEC (Appendix A).

RECENT FISHERIES

2002 Fishery

The Northeast and Eastside Sections met the required criteria for a commercial Tanner crab opening in 2002. The total GHL was 500,000 pounds with 300,000 pounds available in the Northeast Section and 200,000 pounds in the Eastside Section. The harvest totaled 361,166 pounds from 279 landings by 211 permit holders onboard a total of 180 unique vessels (Table 2). The exvessel fishery value was estimated at \$800,000.

The 2002 fishery was active very quickly in most of the fishing area. The Eastside Section was open for 14 total hours of fishing. Fishers were given enough notice of the closure to remove baited gear prior to the closure. Inshore portions of the Northeast Section closed after 60 hours of active fishing with the remainder of the section open for an additional 300 hours.

2003 Fishery

The Northeast and Eastside Sections met the required criteria for a commercial Tanner crab opening in 2003. This was the first fishery that occurred under the CFEC qualification moratorium. Only permit holders that landed Tanner crab in either 1993, 1994, 2001, or 2002 fisheries were allowed to participate.

The total district GHL was 510,000 pounds with 170,000 pounds available in the Northeast Section and 340,000 pounds available in the Eastside Section. The total harvest was 511,324 pounds from 313 landings by 79 permit holders on 72 unique vessels. The exvessel fishery value was estimated at \$1.1 million (Table 2).

The fishery was prosecuted slower than the 2002 fishery. This was largely the result of fewer vessels participating. Ugak Bay was closed after 46 hours of active fishing with the remainder of the Eastside Section open for 146 hours of active fishing.

In the Northeast Section, Kazakof Bay was closed during the eighth 10-hour fishing period (90 hours) of active fishing. The waters inside the three nautical mile territorial sea boundary from Cape Chiniak to Spruce Island closed after 116 hours. The remainder of the Northeast Section was open for 356 hours.

2004 Fishery

The Northeast, Eastside, and Southeast Sections met the required criteria for a commercial opening in 2004. This was the second year that the Kodiak Tanner crab fishery occurred under the CFEC qualification moratorium. Only permit holders that landed Tanner crab in either 1993, 1994, 2001, or 2002 fisheries were allowed to participate.

The total district GHL was 795,000 pounds with 245,000 pounds available in the Northeast Section, 450,000 pounds in the offshore portion of the Eastside Section, and 100,000 pounds in the Southeast Section. The total harvest was 566,218 pounds from 252 landings by 81 permit holders on 78 unique vessels. The exvessel fishery value was estimated at \$1.3 million (Table 2).

The fishery in the Northeast Section was prosecuted faster than the previous year, while the fishery in the Eastside section was prosecuted slower. The Northeast Section closed by emergency order on February 1, 2004. Ugak and Kiliuda Bays in the Eastside Section were left closed. The GHL in the Eastside Section was not fully attained and closed by regulation on March 31. The Southeast Section had not opened in previous recent fisheries. Inside waters of the Southeast Section closed, but outside waters closed by regulation on March 31.

REGULATIONS

OVERVIEW

Regulations pertaining to Tanner crab fishing in the State of Alaska can be found in chapter 35 of the Alaska Administrative Code (AAC). Chapter 35 begins on page 165 of the 2003-05 Commercial Shellfish Regulations booklet. Specific regulations that pertain to the Tanner crab fisheries in Registration Area J (Westward Region) begin on page 183. The harvest strategy, 5 AAC 35.507 KODIAK, CHIGNIK, AND SOUTH PENINSULA DISTRICTS, *C. bairdi* TANNER CRAB HARVEST STRATEGIES, can be found on pages 186-187 of the 2003-2005 Commercial Shellfish Fishing Regulations, which will be referred to as 'shellfish regulations' for the remainder of this report. Some of the regulations regarding Tanner crab fishing are summarized below, particularly those that have changed as a result of BOF action in 1999 and 2002. For additional information on regulations, contact the ADF&G office in Kodiak and refer to the shellfish regulations (available at ADF&G offices or at our website: <http://www.state.ak.us/adfg/>). The following is an overview of regulations pertaining to Tanner crab fishing in the Kodiak District:

- **The Kodiak District is a superexclusive registration district for Tanner crabs, 5 AAC 35.506 AREA J REGISTRATION (a).** A vessel or permit holder that registers for the 2005 Tanner crab fishery may not take Tanner crabs or any crab of the genus *Chionoecetes* in another district within the same registration year. A vessel is considered registered for the fishery when the permit holder signs the registration form; a valid registration does not require actual fishery participation or landing.
- **Vessels must be registered for a specific section in the Kodiak District 5 AAC 35.506 AREA J REGISTRATION (h).** A vessel operator may only be registered to fish one section at a time. Participants will be required to specify on their registration the section they will begin fishing in the 2005 fishery. Fishers may change this section registration at any time by contacting ADF&G by phone, FAX, or in person.

- When the district GHL is less than 2.0 million pounds, which applies to 2005, **the pot limit is 20 pots per vessel**. Pot limit regulatory language is under 5 AAC 35.525 LAWFUL GEAR FOR REGISTRATION AREA J (c)(1)(A)-(D).
- **Fishing gear may be operated for 10 hours each day from 8:00 AM to 5:59 PM.** Baited gear may be left in the water, for 14 hours from 6:00 PM to 7:59 AM each night. The regulation for the daily fishing and soak periods can be found under 5 AAC 35.510 FISHING SEASONS FOR REGISTRATION AREA J (a).
- **The start of the season may be delayed if severe weather is forecast.** The regulation for a fishery delay can be found under 5 AAC 35.510 FISHING SEASONS FOR REGISTRATION AREA J (a). The details of how this regulatory criteria will be used to assess weather and delay the fishery opening, if needed, can be found in the '*Fishery Opening Delay Due To Severe Weather*' section on page 10.
- **A person or vessel that operates commercial (e.g., Pacific cod pots), subsistence, or personal use pot gear 14 days prior to the Kodiak District Tanner crab fishery may not participate in the commercial Tanner crab fishery 5 AAC 35.053.**
- **A person or vessel validly registered for the Tanner crab fishery may switch to Pacific cod fishing without a 14 day stand down period if they invalidate their Tanner crab registration and place their Tanner crab pots in storage.**

CFEC LIMITATION

The Kodiak District Tanner crab fishery is now limited entry. The CFEC established a point system for permit qualification for limited entry. For more information on the status of Kodiak District Tanner crab limitation, contact CFEC (Appendix A).

2005 GUIDELINE HARVEST LEVELS

The following GHLs will be in place for the Northeast, Eastside, Southeast, and Southwest Sections of the Kodiak District for the 2005 commercial Tanner crab season:

<i>Section</i>	<i>2005 Guideline Harvest Level</i>
Northeast	550,000 pounds
Eastside	650,000 pounds
Southeast	100,000 pounds
Southwest	450,000 pounds
Total Kodiak District	1,750,000 pounds

The estimated number of legal crabs from the 2004 trawl survey in these four sections is over 4.0 million crabs. Appendix B contain maps illustrating the estimated number of legal males from the 2001-2003 trawl surveys.

The Eastside Section will open, but Kiliuda Bay will remain closed (Figure 2), due to the low abundance of legal-sized crabs. Ugak Bay will be monitored closely and may be closed quickly if fishery performance declines or if exploitation rates reach estimates obtained from the survey. The Southeast Section will be managed inseason to insure harvest is distributed similarly to the survey results. This may require a quick closure in the inside waters of South Sitkalidak Strait and the inshore bays. For the second consecutive year the Southwest Section crab population is above threshold levels, and will now open to commercial fishing. Historically, this section has a high percentage of crab infected with bitter crab disease. It is important to handle crab from this section in a manner that minimizes the spread of this disease to non-infected areas. The department will issue a news release describing this disease and methods to minimize risk of transmission.

As a result of the Southwest Section of the Kodiak District and Chignik District opening, the Semidi Island Section of the Kodiak District will also open to Tanner crab fishing. This section will remain open until both the Southwest Section of the Kodiak District and the Chignik District close. The Semidi Island Section does not have a mature male abundance threshold or a guideline harvest level. The Westside and North Mainland Sections' mature male abundance estimates remain below their respective harvest strategy thresholds. These sections and the South Mainland Section will remain closed.

The fishery in each section will close when ADF&G determines that the GHL is achieved or when conditions indicating a threat to the long-term health of the stock, such as low catch per pot or excessive bycatch of female or sublegal male Tanner crabs, are observed (*See Fishery Management Plan, Page 11*). The regulatory season closure date is March 31.

Appendix C depicts the estimated population of male Tanner crabs by carapace width from the 1987 through 2003 surveys. Alaska Statute 16.05.815 CONFIDENTIAL NATURE OF CERTAIN REPORTS AND RECORDS (8)(c) requires the 2004 survey location data to remain confidential until the fishing season is completed.

FISHING PERIODS

Pot gear may only be operated from 8:00 AM to 5:59 PM. Operation of gear, which includes setting or retrieving pots, is prohibited from 6:00 PM to 7:59 AM. Further information on fishing seasons and gear operation hours can be found under 5 AAC 35.510 FISHING SEASONS FOR REGISTRATION AREA J (a) on page 188 of the shellfish regulations.

POT LIMITS AND BUOY TAGS

The following table lists the pot limits at various GHLs for the Kodiak District:

<u>Guideline Harvest Level Range</u>	<u>Pot limit</u>
Less than 2,000,000 pounds	20 pots per vessel
2,000,000 to less than 4,000,000 pounds	30 pots per vessel
4,000,000 to less than 5,000,000 pounds	40 pots per vessel
5,000,000 pounds or greater	50 pots per vessel

The pot limit for the 2005 Kodiak District fishery will be 20 pots per vessel. To ensure compliance with pot limit regulations, the main or trailer buoy on each pot must display one

fishery-specific identification tag issued by the department for the current year. More information on buoy tags can be found under 5 AAC 35.526 TANNER CRAB POT MARKING REQUIREMENTS FOR REGISTRATION AREA J on page 193-194 of the shellfish regulations.

Tags will be available for purchase beginning in mid-December at a cost of \$1.50 per tag. A valid 2005 Tanner crab CFEC permit card is required to purchase tags. Participants from areas outside the city of Kodiak can purchase tags via U.S. Mail until December 31. No tags will be mailed after this date; contact the ADF&G office in Kodiak for details (907) 486-1840 (Appendix A)

Replacement tags may be obtained by contacting the Alaska Department of Fish and Game. The vessel owner, operator, or agent must complete an affidavit form describing how the tags were lost and supply the unique number(s) of each lost tag.

Pots with lost tags must be secured open with the bait removed until replacement tags are obtained. Vessels must contact Alaska State Troopers, Division of Wildlife Protection (Appendix A) to inform them of the situation.

GEAR

Gear for the commercial Tanner crab fishery is limited to pots no more than 10 feet long by 10 feet wide by 42 inches high with rigid tunnel eye openings that are less than five inches in height. Tunnel eye opening perimeters must be individually more than 36 inches. Ring nets **are not** legal gear in the Kodiak District for the commercial take of Tanner crabs. The specific language regarding legal pot dimensions can be found under 5 AAC 35.050 LAWFUL GEAR FOR TANNER CRAB on page 169 of the shellfish regulations.

Escape mesh or ring requirements are included in the regulations for legal Tanner gear. Each pot used to take Tanner crabs must have at least one third of one vertical surface of the pot composed of not less than 7-1/4 inch stretched mesh webbing or have no less than four circular escape rings which have an inside diameter of at least five inches. If using rings, they must be installed on the vertical plane of the pot to allow for escapement of undersized crabs. The rings are not required to be placed within a certain distance from the bottom as they are in some Bering Sea fisheries. However, ADF&G recommends placing rings within one mesh of the bottom of the pot to optimize escapement of undersized crabs. The specific language on escape device requirements can be found under 5 AAC 35.525 LAWFUL GEAR FOR REGISTRATION AREA J on page 192 of the shellfish regulations.

All pots must be equipped with a biodegradable escape mechanism as described in 5 AAC 39.145 ESCAPE MECHANISM FOR SHELLFISH AND BOTTOMFISH POTS on page 54 of the shellfish regulations. An opening 18 inches or greater in length that is placed within six inches of the bottom of the pot must be laced, sewn, or secured together by a single length of untreated, 100 percent cotton twine no larger than 30 thread.

Buoys attached to pots must comply with 5 AAC 35.051 TANNER CRAB GEAR MARKING REQUIREMENTS listed on page 169 and 5 AAC 35.526 TANNER CRAB GEAR MARKING REQUIREMENTS AREA J on page 193-194 of the shellfish regulations. The buoy that contains the ADF&G number marking may not be marked with additional numbers; however, symbols and letters are acceptable on the buoy with the ADF&G number. Trailer or other buoys used to mark ownership or string sequence may be marked with any desired numbers, symbols, or letters.

The use of converted pots as ‘storage boxes’ to store crabs in the water for vessels registered as dry tanked vessels is not permitted unless crab storage devices are attached to the vessel at all time.

Operation of Other Pot Gear, Pot Storage, and Landing Requirements

There is a 14-day stand down period for the operation of pot gear before the commercial Tanner crab fishery opening in the Kodiak District. No person or vessel that will participate in the commercial Tanner crab fishery may operate commercial, subsistence, sport, or personal use pots for any species within the district during that 14-day period.

Legally outfitted pots with buoy tags attached may be placed into shallow water storage during the 14-day stand down period. However, vessels may not retrieve gear already in legal storage to put tags on gear during the 14-day stand down period. In addition, vessels **will not** be allowed to retrieve gear before the fishery opening, after the tank inspection, due to enforcement concerns. There would be no way to distinguish a vessel retrieving gear from storage and a vessel fishing before the opening. Only after the fishery opens will vessels be allowed to retrieve pots from storage. At the time of registration, all gear onboard and in the water must have buoy tags affixed to be in compliance.

After the closure of the Tanner crab season, vessels wishing to participate in the Pacific cod fishery must either place pots into shallow-water storage or on land and register with ADF&G for the Pacific cod fishery. Additional stipulations on the operation of other pot gear within the Kodiak District can be found under 5 AAC 35.053 OPERATION OF OTHER POT GEAR on page 195 of shellfish regulations.

Up to 20 pots may be stored for 30 days before the season in waters of 25 fathoms or less with all bait and bait containers removed and with the doors secured fully open (or not secured closed for cone or pyramid pots). No vessel may have more than the specified pot limit onboard or in wet storage in the registration district (all waters from Cape Douglas to Kilokak Rocks) while the vessel is validly registered. The regulatory language concerning pot storage can be found at 5 AAC 35.527 TANNER CRAB POT STORAGE REQUIREMENTS FOR AREA J on page 194-195 of the shellfish regulations.

Delivery requirements, post-closure pot storage requirements, and re-registration requirements vary depending on the type of area closure and the amount of notice given. The following is a summary of closure scenarios, subsequent pot-storage options, delivery requirements, and re-registration requirements contained in 5 AAC 35.030, 5 AAC 35.031, 5 AAC 35.052, 5 AAC 35.527, and 5 AAC 35.556:

Closure of an entire section with 6 or more hours notice of the closure given. Vessel operators are required to deliver all catch from the section within 24 hours of the closure. Unbaited gear with doors secured open may be stored in waters deeper than 25 fathoms for 72 hours following the closure. After 72 hours, all gear remaining in the closed section must be removed or stored in waters shallower than 25 fathoms. Gear may remain in shallow water storage for up to 30 days after the closure of the entire Kodiak District. While in transit from the closed area, vessel operators may contact ADF&G and re-register for an open section. This will permit vessels to legally place baited gear, once validly registered, in the waters of the open section provided the 24 hour delivery deadline is met.

Closure of an entire section with less than 6 hours advance notice of the closure given. Vessel operators are required to proceed directly to port at the time of the closure and deliver within 24 hours. Vessel operators may not place gear in storage, retrieve pots from storage, or place gear in an open section until they have completed their delivery of crabs from the closed section. Vessel operators are required to immediately return to the fishing grounds after their delivery to 'rail dump' all crab from baited gear left on the grounds. Vessel operators with baited gear may only store baited pots in waters deeper than 25 fathoms for 72 hours following the closure. Vessel operators may re-register for an open section after completing their delivery and removing any baited gear from the grounds. A tank inspection will be required before vessels may register for an open section.

Partial closure of a fishing section with 6 or more hours notice of the closure given. Vessel operators are required to deliver all crabs from the section within 24 hours of the closure. Vessel operators may store pots in waters deeper than 25 fathoms for 72 hours in the closed waters of the section. Vessel operators may place, or simultaneously have, baited gear in the open waters of the same section before delivery provided the 24 hour delivery deadline is met. Any changes to the delivery requirement would be provided in a news release at the time of the closure announcement.

Partial closure of a fishing section with less than 6 hours notice of the closure given. This scenario is highly unlikely. Should this type of closure occur the landing, pot storage, and re-registration requirements would be provided in a news release.

Closure of the entire Kodiak District with 6 or more hours notice of the closure given. Vessel operators are required to deliver all crabs within 24 hours of the closure. Vessel operators may store pots with bait and bait containers removed and doors secured open in waters deeper than 25 fathoms for up to 7 days following the closure. Gear may be stored with bait and bait containers removed and doors secured open in waters shallower than 25 fathoms for 30 days after the closure.

Closure of the entire Kodiak District with less than 6 hours notice of the closure given. Vessel operators are required to deliver within 24 hours. After the closure, vessel operators may not place gear in or remove gear from storage until they have completed their delivery of crabs. Baited gear may be stored in waters deeper than 25 fathoms for 72 hours following the closure. Vessel operators are required to immediately return to the fishing grounds after their delivery to 'rail dump' any baited gear left on the grounds. Pots may then be stored in waters shallower than 25 fathoms for up to 30 days.

Vessel operators wishing to deliver to ports outside the district are required to contact the ADF&G office in Kodiak before leaving the district. Vessels delivering outside the district must provide the estimated number of crabs onboard the vessel at the time of the closure, location of port and processing facility, and estimated time of arrival. Additional requirements exist for catcher-processors and vessels mechanically disabled. Vessels legitimately delayed due to circumstances of weather will be addressed on a case by case basis. The specific regulation is 5 AAC 35.031 TANNER CRAB LANDING REQUIREMENTS and is on page 167-168 of the shellfish regulations.

REGISTRATION, CFEC VESSEL SIZE RESTRICTIONS, TENDERS, AND TANK INSPECTIONS

Vessel operators must have a 2005 permit card for District K Tanner crab and a current 2005 commercial vessel license. Vessels that do not qualify for a CFEC permit may not participate in the Kodiak District Tanner crab fishery; the fishery is no longer “open access”. Permits and vessel licenses can be obtained from the CFEC in Juneau. Vessel operators must register for a single section in the Kodiak District. Vessel operators may change their section registration by contacting the department in person or by other means.

CFEC adopted two vessel size categories for the issuance of permits in the Kodiak District Tanner crab fishery. Persons eligible to receive a permit will receive either a permit for vessels with an overall length of less than 60 feet or a permit for vessels of 60 to 120 feet in overall length. The type of card issued is dependent on what size vessel was used during the qualifying years of 1993, 1994, 2001, and 2002. Persons receiving a permit for ‘large vessels’ of 60 to 120 feet can use their permit on vessels smaller than 60 feet. A ‘large vessel’ permit card cannot be used on a vessel greater than 120 feet in overall length. Persons receiving a permit for ‘small vessels’ under 60 feet in overall length cannot make landings on a vessel 60 feet or longer in overall length.

Tender vessels must register with ADF&G before beginning tendering operations. Tender vessels may not have a pot-hauling block or other Tanner crab gear onboard nor may they be used to harvest Tanner crab.

Tank inspections are required for vessels with a circulating sea water system to confirm that no crabs are onboard the vessel prior to the opening. Circulating sea water systems include on-deck containers with water circulated by pumps, hoses, or other means. Gear will also be inspected at the time of tank inspection to ensure it is in compliance with all gear regulations. Tanks will be inspected beginning at noon on January 14 unless the fishery is delayed for severe weather (*see Fishery Opening Delay Due to Severe Weather*). Arrangements will be made to accommodate vessel inspections in Old Harbor. Upon successful completion of the tank inspection and gear inspection process, a valid 2005 shellfish registration will be issued to the vessel. A copy of this registration must remain onboard the vessel while fishing. This registration becomes invalid 24 hours after the closure of the fishery. Vessels must invalidate their registration before participating in other fisheries if the Tanner fishery remains open.

SIZE LIMIT

The legal minimum size of Tanner crabs that can be harvested in the Kodiak District is 5.5” (140 millimeters) carapace width (CW). Only legal-size male Tanner crabs can be retained; all other crabs incidentally captured must be immediately returned to the water unharmed. This includes king crab, as they cannot be legally taken in a commercial Tanner crab fishery for subsistence purposes.

VOLUNTEER CATCH REPORTING

ADF&G will manage the Kodiak District commercial Tanner crab fishery from inseason catch reports provided by fishers. Inseason management will allow for real-time fishery decisions and the ability to consider changes in effort, fleet behavior, and weather. ADF&G will make every

effort to allow sufficient time for fishers to configure gear for storage or to place gear onboard before a closure; however, the potential exists for a short advance notice closure.

Any validly registered vessel may participate in the reporting process and each registering vessel will be issued a 2005 reporting code and worksheet. Reports will be taken over marine VHF channel 10, single sideband (SSB) 4125 kHz, telephone, satellite dispatch system, and e-mail. The ADF&G office uses Matrix¹ dispatch services; the office number is 7410, the R/V Resolution number is 7411. Vessel operators will be issued a reporting worksheet during tag sales and/or tank inspection to participate in inseason reporting.

Contents of the daily report will contain confidential codes for the section in which the vessel operator is fishing, statistical area, number of pot lifts, and number of crabs retained for each 10-hour fishing period. Reports will initially be taken at 6:30 PM daily and may be transmitted via SSB, marine telex, e-mail, satellite dispatch, and satellite or cell phone. After most of the inside sections have closed, the department will change the reporting schedule to 9:00 AM. Operators will be asked during the registration process which method they will use to submit daily reports.

ADF&G will update the fleet on SSB 4125 kHz with the fishery status each morning at 8:30 AM. Any closure announcement or change in the reporting schedule will be made on this frequency. Current fishery status will also be available on the ADF&G recorded information phone at 486-4559. Messages on the recorded information phone will be updated daily after the 8:30 AM updates. Updates, changes to the reporting schedule, and closure announcements will be distributed via e-mail, FAX, and passed along to all participating processing facilities.

FISHERY MANAGEMENT PLAN

ADF&G may manage bays and offshore areas separately, closing one portion of a section while allowing continued harvest in other locations within the same section. This type of management has been utilized in the previous three Tanner crab fisheries. The department will manage in a manner that prevents the commercial fishery from significantly exceeding the number of animals available for harvest as estimated by the survey within given bays or areas.

Given the distribution of legal animals estimated by the survey in the inside portion of the Southeast Section, the Northeast Section, and Ugak Bay of the Eastside Section, partial closures are likely to occur after very little fishing time (possibly within the first full day of fishing). These types of closures have been used to curtail excessive removals of legal-sized animals or to keep the fishery from working on very low numbers of animals within bays or other areas. Partial section closures will depend on effort, fishery removals, and performance indicators.

As in previous fisheries, much of the estimated legal biomass is offshore. Fishery performance as measured by catch per unit effort (CPUE) of legal crabs, undersized, and female crabs will be closely monitored. As the stocks within these management sections are still rebuilding, closures may occur before the total GHF is achieved if CPUE indicates the number of legal-sized animals has been substantially depleted or if excessive handling of sublegal and female crabs is occurring.

Details of the tank inspection process, updates on inseason reporting, and other fishery related information will be forthcoming in ADF&G news releases.

¹Use of trade names does not constitute an endorsement from ADF&G.

FISHERY OPENING DELAY DUE TO SEVERE WEATHER

In 2002, the BOF adopted criteria that would delay the opening of the entire Kodiak District Tanner crab fishery for 24 hours if gale force winds (35 knots or higher from any direction) are forecast to occur in any section scheduled to open, except Semidi and Southwest Sections. The regulatory language can be found on page 188-189 of the shellfish regulation book under 5 AAC 35.510 FISHING SEASONS FOR REGISTRATION AREA J (a). These criteria were use in the 2003 fishery resulting in the opening being delayed until noon, January 19.

Under this regulation, if the National Weather Service (NWS) forecast issued at 4:00 AM on January 14 contains gale force winds (35 knots or higher from any direction) for the 48-hour forecast in area 3B and 3C corresponding to any section scheduled to open as outlined below, the fishery opening will be delayed in **all** sections for 24 hours. The corresponding NWS areas for the Kodiak District are illustrated in Appendix D and listed as follows:

<u>Section</u>	<u>NWS Area</u>
Northeast	3B
Eastside	3B
Southeast	3B
Westside	3C
North Mainland	3C

If the following morning's 4:00 AM forecast contains gale warnings, the tank inspections and fishery opening would be delayed another 24 hours. The season opening may be delayed on a 24-hour rolling basis until January 24. If the fishery has not opened by the 24th, tank inspections would occur at noon that day and the fishery would open on January 25 at noon, regardless of any gale force warnings in the NWS forecast. Appendix E contains a hypothetical NWS forecast with the opening criteria illustrated.

REFERENCES CITED

Urban, D., D. Pengilly, D. Jackson, and I. Vining. 1999. A Tanner crab harvest strategy for Kodiak, Chignik, and the South Peninsula Districts. A Report to the Board of Fisheries. Alaska Department of Fish and Game, Division of Commercial Fisheries, Westward Region, Regional Information Report 4K99-21, Kodiak.

TABLES AND FIGURES

Table 1.—Tanner crab commercial catch, effort, and value for the Kodiak District, 1967-2004.

Year	Number				Pots		Average	Price Per
	Vessels	Landings	Crabs	Pounds	Lifted	CPUE	Weight	Pound (\$)
1967	NA	83	NA	110,961	NA	NA	NA	\$0.07
1968	NA	817	NA	2,560,687	NA	NA	NA	\$0.10
1969	85	955	NA	6,827,312	72,748	43	NA	\$0.11
1969/70	67	833	3,237,244	8,416,782	78,266	42	2.6	\$0.11
1970/71	82	453	2,686,067	6,744,163	60,967	44	2.5	\$0.11
1971/72	46	505	3,878,618	9,475,902	65,907	59	2.4	\$0.13
1972/73	105	1,466	13,609,688	30,699,777	188,158	72	2.3	\$0.17
1973/74	123	1,741	11,857,573	29,820,899	217,523	55	2.5	\$0.20
1974/75	74	471	5,459,940	13,649,966	73,826	74	2.5	\$0.17
1975/76	104	1,168	10,748,958	27,336,909	199,304	54	2.5	\$0.20
1976/77	102	998	7,830,727	20,720,079	164,213	48	2.6	\$0.33
1977/78	148	1,483	12,401,243	33,281,472	251,621	49	2.6	\$0.43
1978/79	218	1,225	10,702,829	29,173,807	275,455	38	2.7	\$0.55
1979/80	211	1,385	6,813,128	18,623,875	282,946	24	2.7	\$0.55
1980/81	188	771	4,398,631	11,748,629	174,351	25	2.7	\$0.65
1981/82	221	950	5,413,467	13,756,159	230,403	24	2.5	\$1.65
1982/83	348	1,439	7,744,812	18,927,061	377,562	21	2.4	\$1.25
1983/84	303	1,229	5,891,968	14,478,066	303,764	19	2.5	\$1.20
1984/85	214	710	4,567,037	12,024,553	176,830	26	2.6	\$1.50
1985/86	233	601	3,457,930	8,996,151	160,808	21	2.6	\$1.90
1986/87	189	503	1,830,365	4,833,473	110,963	16	2.6	\$2.62
1987/88	176	557	1,614,874	3,888,906	101,488	16	2.4	\$2.40
1988/89	171	567	2,106,320	5,208,999	86,556	24	2.5	\$3.05
1989/90	233	548	1,435,477	3,456,314	97,333	15	2.4	\$2.40
1990/91	137	448	764,107	1,917,713	54,110	14	2.5	\$1.59
1991/92	143	434	982,391	2,400,213	47,384	20	2.4	\$2.22
1992/93	140	353	518,982	1,318,446	43,528	12	2.5	\$2.10
1993/94	129	378	510,681	1,252,342	41,527	12	2.5	\$2.25
1994/95 to 1999/2000 NO COMMERCIAL FISHERY								
2001	144	219	193,138	510,407	7,233	27	2.6	\$2.30
2002	181	276	146,665	361,818	10,446	14	2.5	\$2.21
2003	72	319	215,594	511,324	11,108	14	2.4	\$2.20
2004	66	252	254,990	566,218	15,550	15	2	\$2.35
TOTAL	NA	NA	131,018,454	343,033,165	3,966,328	NA	NA	NA

NA = not available

Table 2.—Catch, effort, and value by fishing section from the Kodiak District Tanner crab fishery, 2002-2004.

Section	No. of Vessels	No. of Permits	GHL (pounds)	Pounds Harvested	Pots Lifted	CPUE	Average Weight (lbs.)	Price per Pound (\$)	Exvessel value (\$)
2002									
Northeast	104	118	300,000	127,818	6,005	10	2.2	2.21	282,478
Eastside	88	103	200,000	233,348	4,441	20	2.6	2.21	515,699
Total	180 ^a	211 ^a	500,000	361,166	10,446	14	2.4	2.21	798,177
2003									
Northeast	43	42	170,000	177,371	5,316	15	2.1	2.20	390,216
Eastside	38	46	340,000	333,953	5,792	14	2.5	2.20	734,697
Total	72 ^a	79 ^a	510,000	511,324	11,108	14	2.4	2.20	1,124,913
2004									
Northeast	43	44	245,000	259,572	6,300	19	2.2	2.30	597,016
Eastside	20	21	450,000	219,980	6,841	14	2.3	2.30	505,954
Southeast	15	16	100,000	86,666	2,409	16	2.2	2.30	199,332
Total	78	81	795,000	566,218	15,550	16	2.2	2.30	1,302,301

^a Some vessels and permit holders participated in both sections during the fishery.

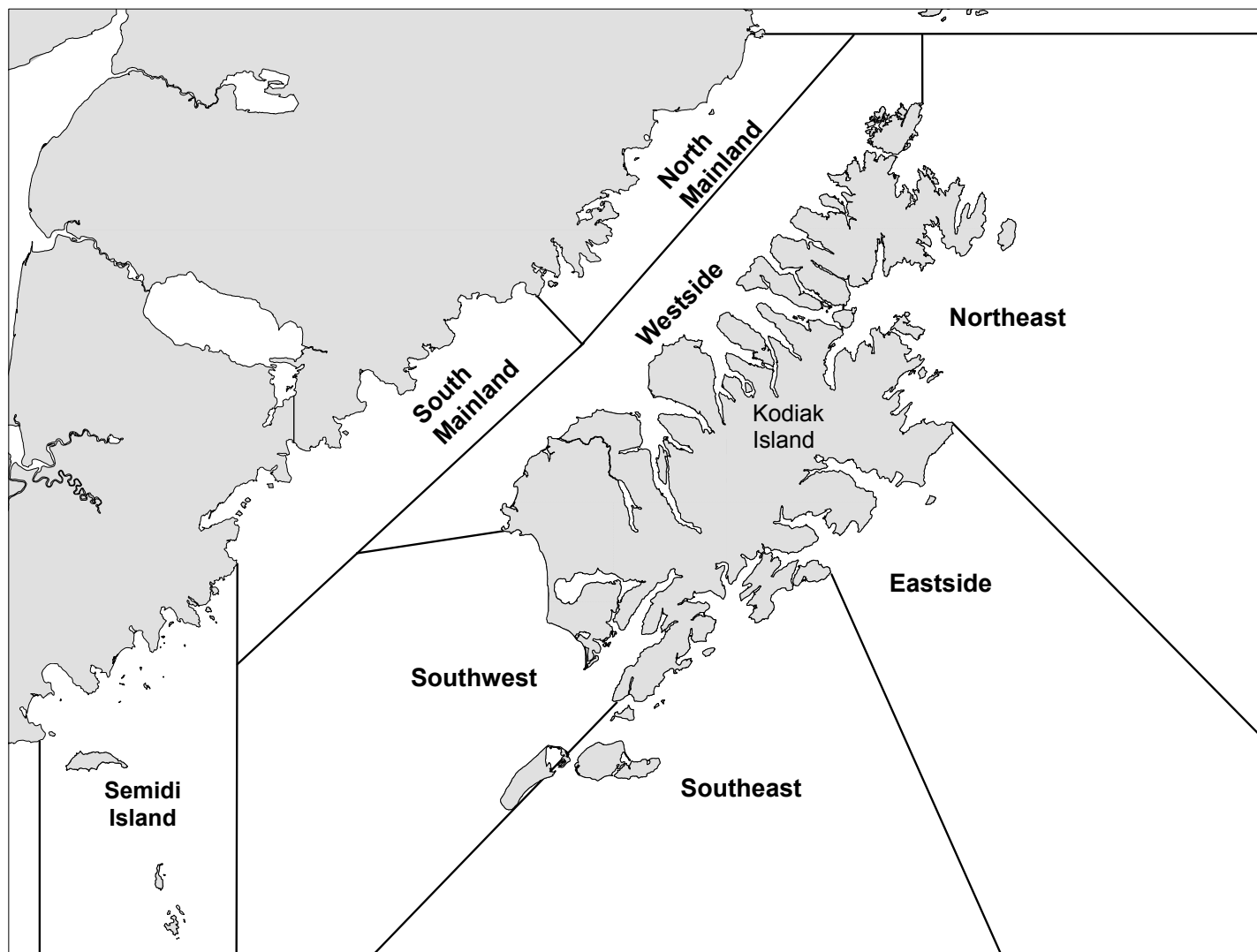


Figure 1.—Kodiak Tanner crab District and Sections, 2004.

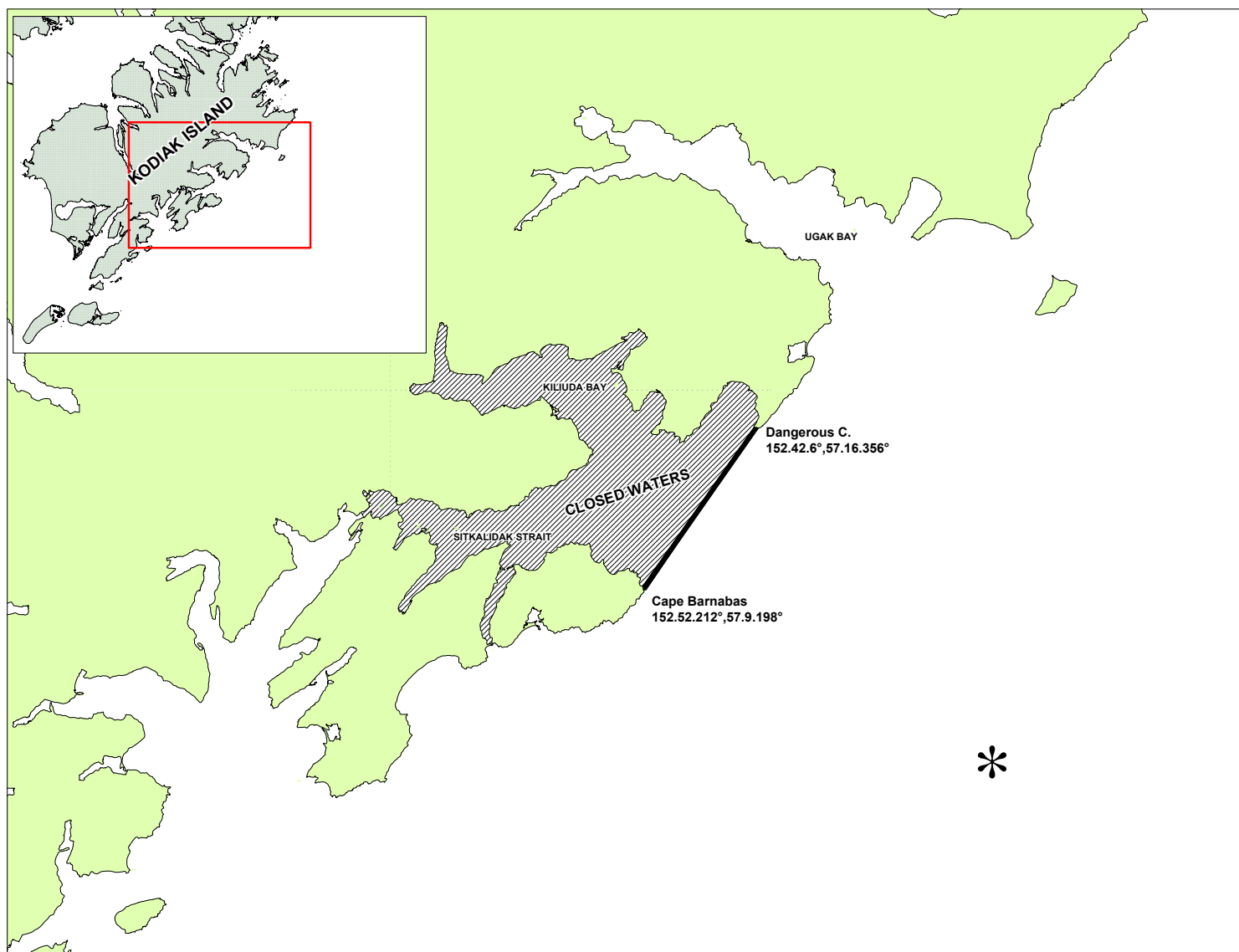


Figure 2.—Eastside Section inshore Tanner crab closures for the 2005 Kodiak District fishery.

APPENDIX A. CONTACT PERSONS, AGENCIES, AND PHONE NUMBERS

Appendix A1.—Listing of contact persons, by agency and location.

Alaska Department of Fish and Game

web site: <http://www.cf.adfg.state.ak.us/region4/>

Kodiak office

Mail address:	211 Mission Road Kodiak, Alaska 99615	physical address: 211 Mission Road 2 nd floor, Kodiak	Phone: (907) 486-1840 FAX : (907) 486-1824
Wayne Donaldson	Westward Region Shellfish/ Groundfish Biologist		wayne_donaldson@fishgame.state.ak.us
Nick Sagalkin	Kodiak, Chignik, Alaska Peninsula Area Shellfish/ Groundfish Biologist		nick_sagalkin@fishgame.state.ak.us
Lynn Mattes	Kodiak, Chignik, Alaska Peninsula Asst. Area Shellfish/ Groundfish Biologist		lynn_mattes@fishgame.state.ak.us
Kally Spalinger	Kodiak, Chignik, Alaska Peninsula Shellfish Biologist		kally_spalinger@fishgame.state.ak.us

Dutch Harbor office

Mail address:	P. O. Box 920587 Dutch Harbor, Alaska 99692	physical address: F.T.S. building, 2 nd floor Airport Beach Road, Dutch Harbor.	Phone: (907) 581-1239 FAX: (907) 581-1572
Forrest Bowers	Bering Sea/Aleutian Islands Area Biologist		forrest_bowers@fishgame.state.ak.us

Division of Fish and Wildlife Protection

web site: <http://www.dps.state.ak.us/fwp/>

Kodiak office

Mail address:	2921 A Mill Bay Road Kodiak, Alaska 99615	physical address: 2921 A Mill Bay Road	Phone: (907) 486-4761 FAX: (907) 486-5480
Sargent Lonnie Gonzales	Post Sargent		lonnie_gonzales@dps.state.ak.us
Sven Skille	Trooper		sven_skille@dps.state.ak.us

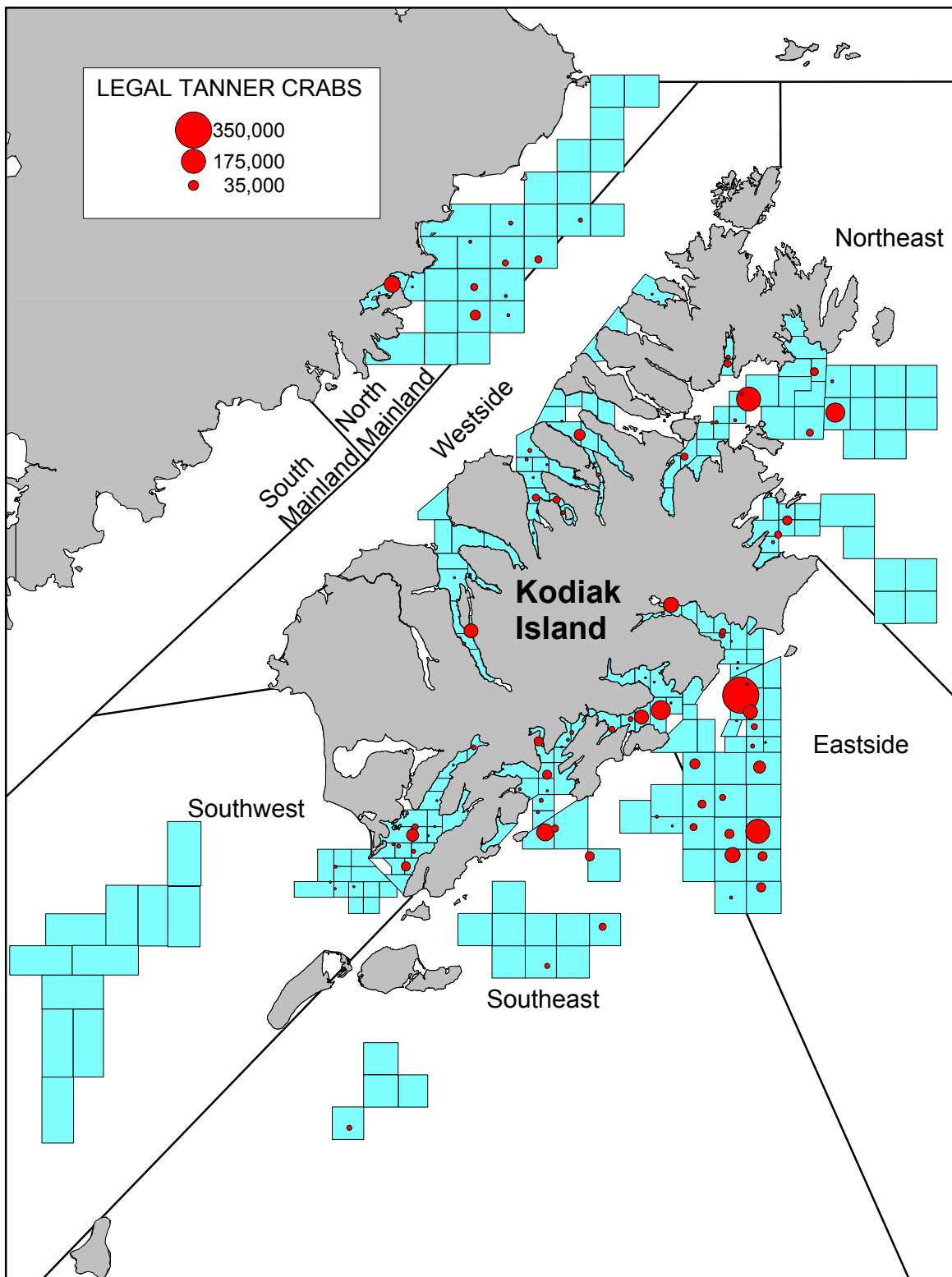
Commercial Fisheries Entry Commission

web site: <http://www.cfec.state.ak.us/>

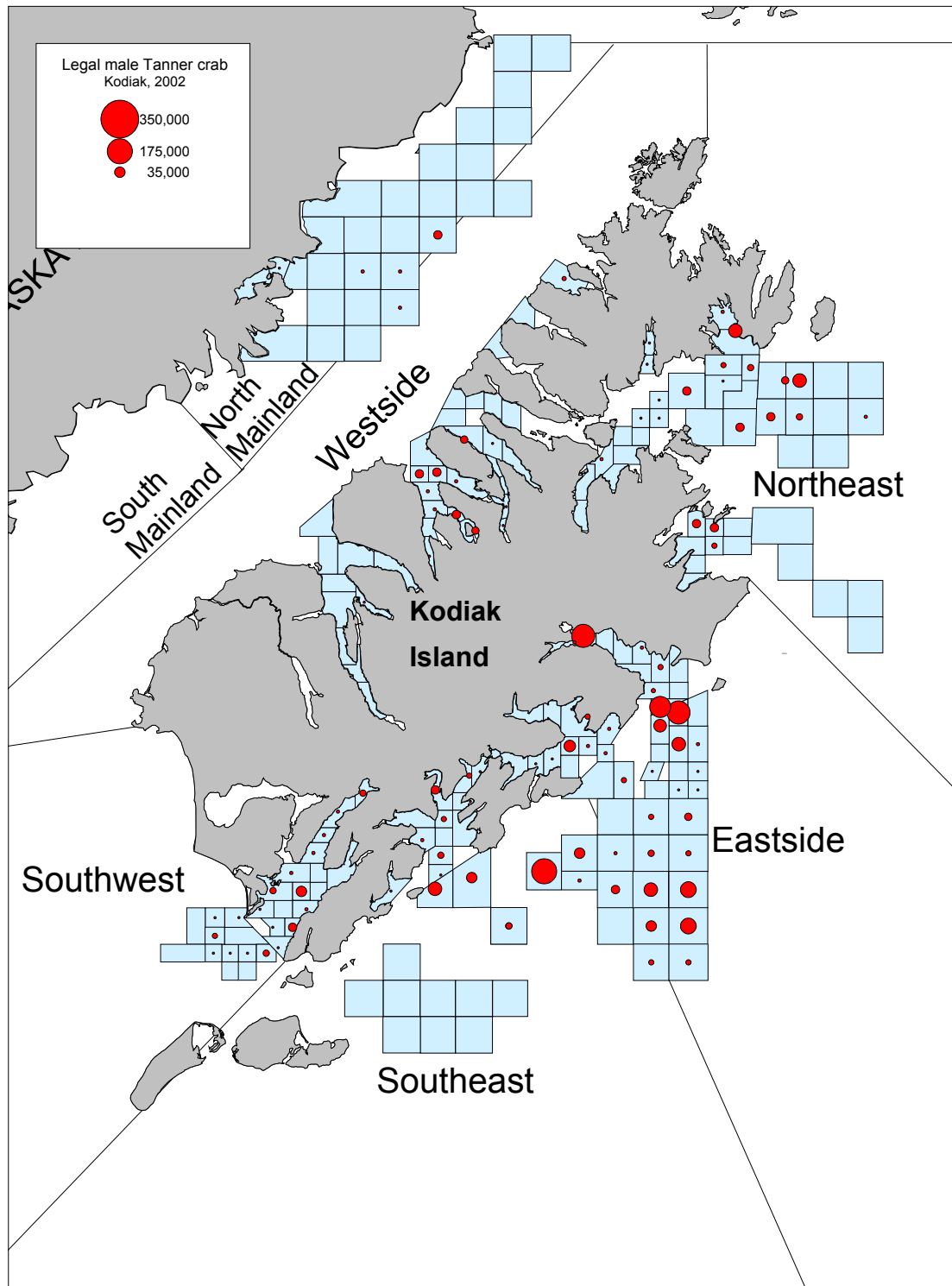
Juneau office

Mail address:	8800 Glacier Highway Juneau, Alaska 99615	physical address: 8800 Glacier Highway Juneau, Alaska	Phone: (907) 789-6160 FAX : (907) 789-6160
Susan Haymes	CFEC staff		susan_haymes@cfec.state.ak.us

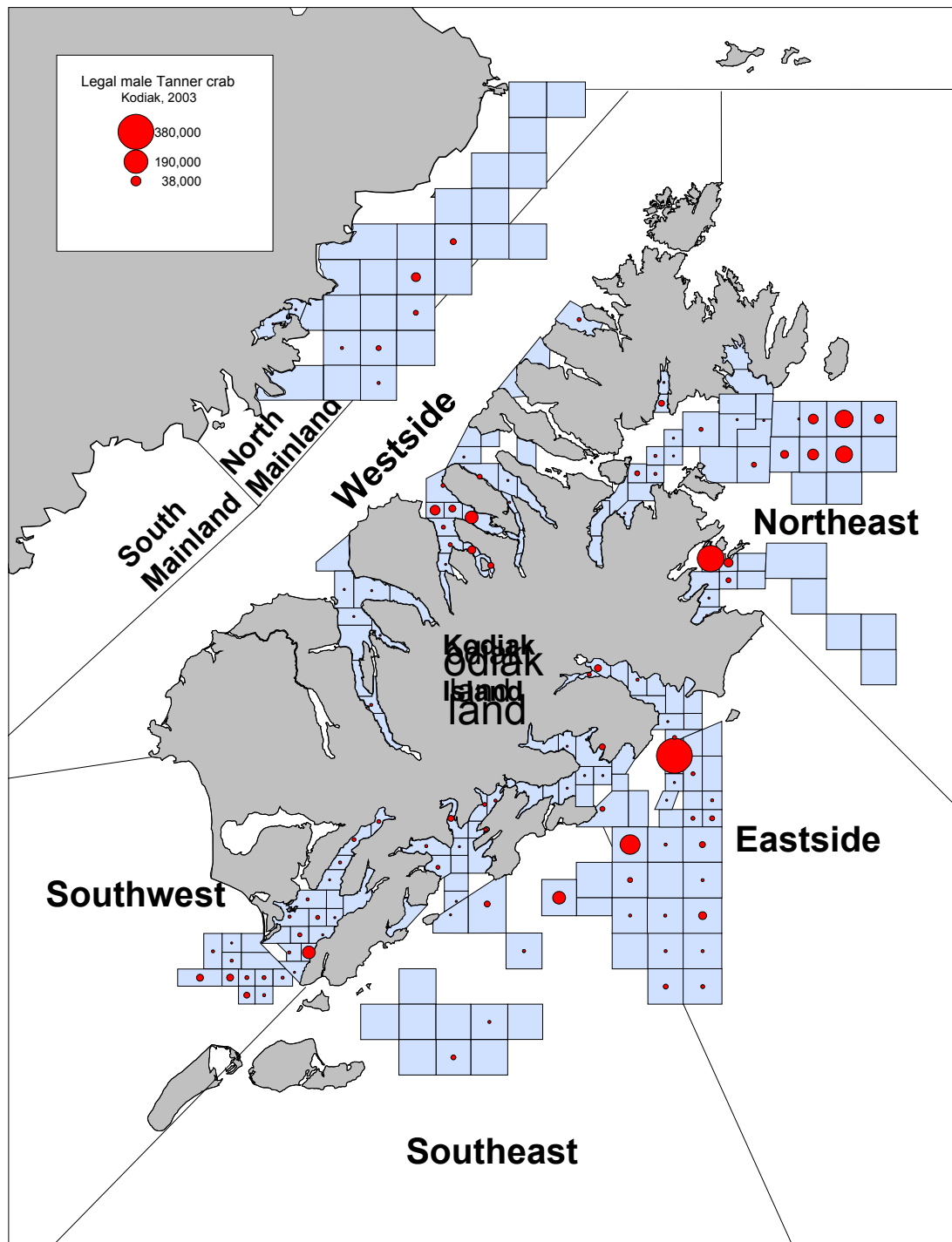
APPENDIX B. SURVEY RESULTS 2001-2003



Appendix B1.—Population estimates of legal male Tanner crabs in the Kodiak District from the 2001 trawl survey.

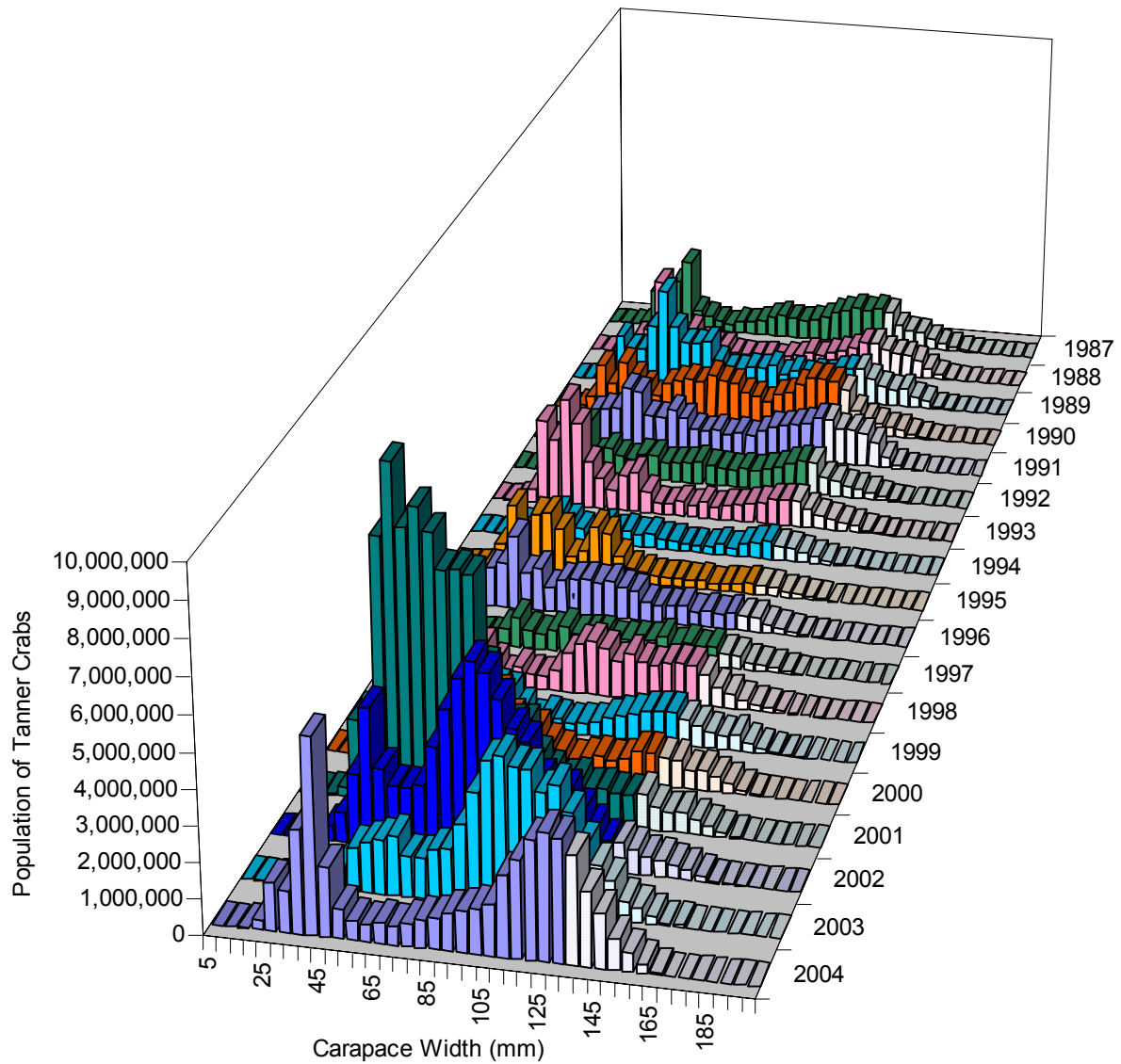


Appendix B2.—Population estimates of legal male Tanner crabs in the Kodiak District from the 2002 trawl survey.



Appendix B3.—Population estimates of legal male Tanner crabs in the Kodiak District from the 2003 trawl survey.

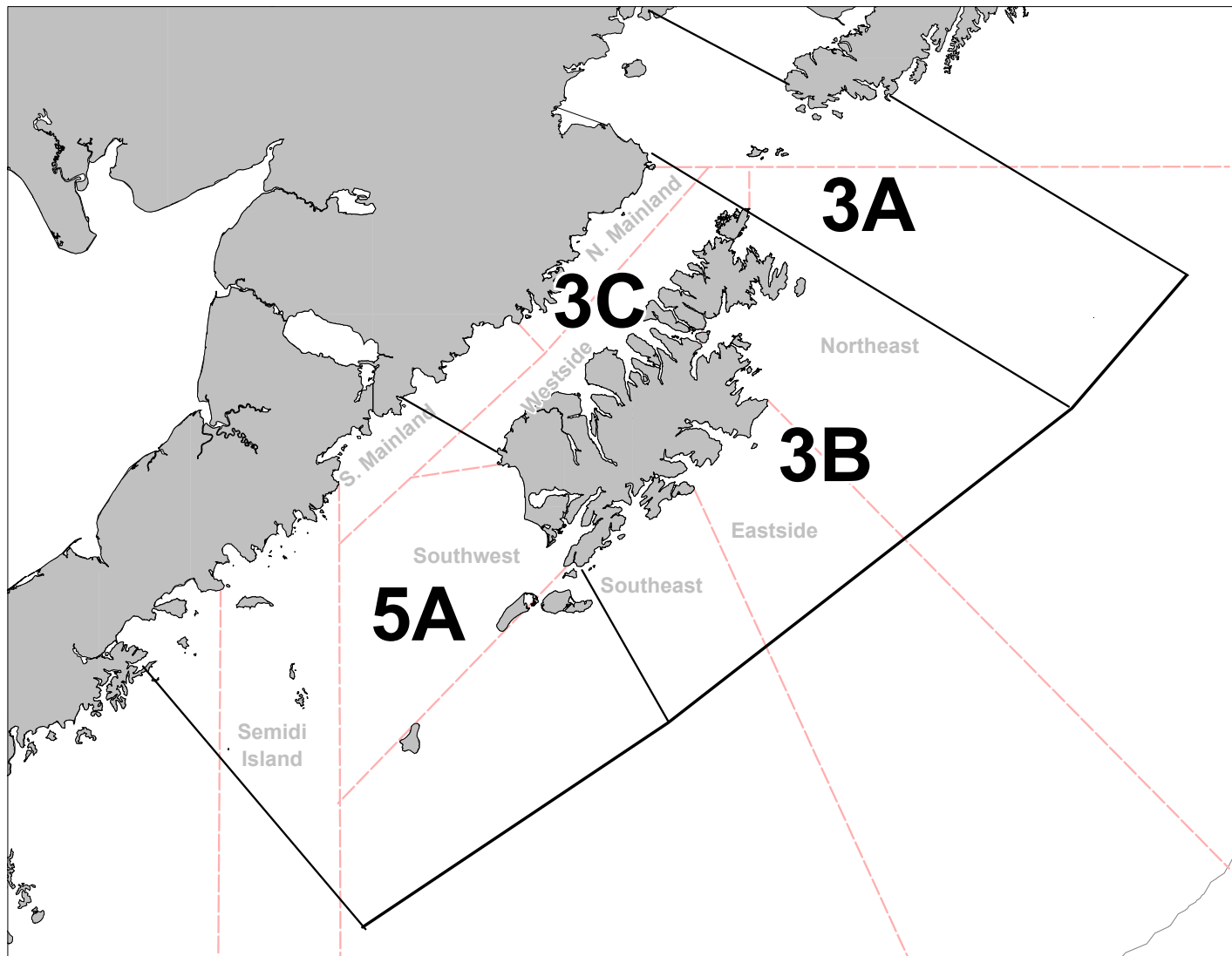
APPENDIX C. TANNER CRAB CARAPACE WIDTH



Appendix C1.—Estimated population of male Tanner crab by carapace width in the Kodiak District, 1987-2003.

Legal-sized crabs lightly shaded

APPENDIX D. WEATHER DELAY



Appendix D1.—National Weather Service forecast areas and Kodiak District Tanner crab management sections.

Appendix D2.– Example National Weather Service Forecast text and hypothetical weather delay actions.

SOUTH CENTRAL ALASKA COASTAL WATERS FORECAST
NATIONAL WEATHER SERVICE ANCHORAGE ALASKA
400 AM AST WED JAN 14 2004

Forecast issuance date and time.

PKZ197-080300-

Synopsis

.SYNOPSIS FOR THE NORTH GULF COAST+KODIAK ISLAND WATERS+
COOK INLET...

A 969 MB LOW NEAR KING SALMON MOVES INTO BRISTOL BAY TUESDAY NIGHT
AND IS THEN ABSORBED BY THE FOLLOWING LOW. A 961 MB LOW 500 NM SOUTH
OF KODIAK MOVES TO 250 NM SOUTHEAST OF KODIAK THURSDAY MORNING WITH A
PRESSURE OF 970 MB.

AREA 3B. SHUYAK ISLAND TO SITKINAK
400 AM AST WED JAN 14 2004

Forecast Area designation and location

24
hours

...GALE WARNING TODAY...
...SMALL CRAFT ADVISORY TONIGHT THROUGH THURSDAY...
.TODAY...NORTHWEST WINDS 40KTS WITH GUSTS TO 50KTS. AREAS OF FOG.
.TONIGHT...E WIND 30 KT. SEAS 16 FT. RAIN AND SNOW. AREAS OF FOG.
.THU...NE WIND 25 KT. SEAS 14 FT.
.THU NIGHT...NE WIND 15 KT. SEAS 11 FT.

In this example, because a gale warning is in the 24 hour forecast, the fishery opening in ALL sections would be delayed for 24 hours

AREA 3B. SHUYAK ISLAND TO SITKINAK
400 AM AST WED JAN 14 2004

48
hours

...SMALL CRAFT ADVISORY DUE TO ROUGH SEAS TODAY...
...SMALL CRAFT ADVISORY TONIGHT THROUGH WEDNESDAY...
.TODAY...E WIND 20 KT. SEAS 10 FT. RAIN. AREAS OF FOG.
.TONIGHT...E WIND 30 KT. SEAS 16 FT. RAIN AND SNOW. AREAS OF FOG.
.THU...NE WIND 35 KT. SEAS 14 FT.
.THU NIGHT...NE WIND 25 KT. SEAS 11 FT.

In this example, because a gale warning is in the 48 hour forecast, the fishery opening in ALL sections would be delayed for 24 hours

AREA 3B. SHUYAK ISLAND TO SITKINAK
400 AM AST WED JAN 14 2004

...SMALL CRAFT ADVISORY DUE TO ROUGH SEAS TODAY...
...SMALL CRAFT ADVISORY TONIGHT THROUGH WEDNESDAY...
.TODAY...E WIND 20 KT. SEAS 10 FT. RAIN. AREAS OF FOG.
.TONIGHT...E WIND 30 KT. SEAS 16 FT. RAIN AND SNOW. AREAS OF FOG.
.THU...NE WIND 25 KT. SEAS 14 FT.
.THU NIGHT...NE WIND 15 KT. SEAS 11 FT.

In this example, because no gale warnings are posted in the 48 hour forecast, the fishery would open as scheduled